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Irene Vandermolen

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Deputy Commissioner Accepts Position in Industry

After over four years as the Department of Environmental Protection's Deputy Commissioner for Environmental Quality, Melvin J. Schneidermeyer left the Department October 31 to accept the position of Director of Environmental Affairs for United Technologies Corporation. Schneidermeyer will be responsible for assuring that all United Technologies' operating units are informed about and comply with company environmental policies and governmental environmental regulations.

Before his appointment as DEP's Deputy Commissioner, Schneidermeyer served for eight years as Director of the Central Connecticut Regional Planning Agency, where he was involved with activities ranging from solid waste disposal to economic development. He received his Bachelor of Science in City Planning and a Master's Degree in Urban and Regional Planning from the University of Illinois. Coming to DEP from a primarily planning background, Schneidermeyer says he found one of the advantages being "directly responsible for the implementation of the policies you're involved in planning."

Heading up DEP's Division of Environmental Quality — which is responsible for regulatory programs dealing with air pollution, water quality, water resources, solid waste management, noise, hazardous materials, and radiation -- has been lively.

"Of all the mail the Department receives," Schneidermeyer says, "nine out of ten letters are directed to the Division of Environmental Quality. Satisfied customers don't ordinarily write, though I've heard more compliments recently."

"Environmental quality," he says, "has no 'standard operating practices' in many situations. The legislature makes changes. Programs and regulations phase in and out. We have concentrated on cleaning up discharges into Connecticut's waters, for example. Now we are in a new ballgame, looking at things like PCBs and lead that are already out there. The new responsibility for dealing with 'in place' pollution rather than discharges could result in corrective actions making the situation worse if not carefully considered.

"There are new ball games coming up all the time. Every few months sees the need for new programs. I think, for instance, that we're the only state that's so far along with an inventory of past hazardous materials disposal sites. We've found 5,000, and dealing effectively with these will pose a whole new set of problems."

In the light of the changing "state of the art" in the fields within the Division of Environmental Quality, Schneidermeyer says, "When you make policies, you have to bring a large dose of 'horse sense' to bear on the technical data. You have to go with both your hunches and the statistical analyses when reviewing the bases for decision making."

Among the significant achievements during his tenure, Schneidermeyer says, "I'm most proud of and pleased with our establishment of a 'multi-media' Hazardous Materials Unit. I'm very happy about the Coastal Area Management Program's success in getting passage, by the last Legislature, of CAM's enabling legislation. And I think our new Noise Control Unit, which took a lot of time and was difficult to establish, is one of the best noise programs in the nation. Our water resources and water compliance operations have been improved significantly."

He adds, "The units in this division are doing more today with fewer people. We have become more efficient, more streamlined. We have excellent people, many of whom are shouldering heavy burdens."

About his own future, Schneidermeyer says, "The challenge is monumental. United Technologies tries to keep its central corporate staff small, so I'll be responsible for a range of activities that employ sizeable staffs in some corporations." ■

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Connecticut's Indians

By Randy Sheinberg,
Massachusetts Audubon Intern

"...All resident Indians of qualified Connecticut tribes are considered to be full citizens of the state and they are hereby granted all the rights and privileges afforded by law..." So reads the Connecticut General Statutes in Chapter 824 entitled "Aliens and Indians." This might seem to be a repetition of something many people take for granted today. But both the State government and various Indian councils are constantly working to guarantee these rights to Connecticut's Indian population.

According to the census of 1977, there are 4,014 Indians living in Connecticut. This total includes members of more than 65 different Indian tribes and nations, five of which are indigenous to the state. Unlike most other Eastern states, Connecticut recognizes its indigenous tribes — the Schaghticoke, the Paucatuck Eastern Pequot, the Mashantucket Western Pequot, the Mohegan and the Golden Hill Paugussett — rather than recognizing only tribes recognized by the federal government (which, in the Eastern states, recognizes only the Cherokees).

Of the State's Indian population, over 95 percent lives in urban areas, even though all the indigenous tribes except the Mohegan have their own reservations. Two-thirds of Connecticut's towns have Indian populations, with half the total living in the cities of Bridgeport, New Haven, Groton, Hartford, Waterbury, Meriden, Norwich and Bristol.

The average age for men, who make up 50.2 percent of Connecticut's Indian population, is 22.0 years; for women it is 23.8 years. Of adult Indians, 54.6 percent are married, but less than one-third have Indian spouses. There are 1,109 recorded Indian households, 54.3 percent of which are husband-wife teams, 14.5 percent female-headed families, and 31.2 percent single individuals. The mean family size is 3.7 people with a mean of 2.5 children per family.

The census of 1977 shows that, as a group, Connecticut's Indians have several problems. For one thing, their educational status is far below the average in Connecticut. Fully 20 percent of the Indians have completed eight or fewer years of schooling, and only five percent of the men and three percent of the women are college graduates. Although these figures are better than those for Indians nationally, they fall far below the educational levels achieved by the average Connecticut citizen.

The lack of education limits employment opportunities available to individual Indians. The majority of employed Indians work in low skill, non-professional jobs like clerical and sales work, labor, crafts, and services. Because of this, the average income of Indian families is quite low. More than two-fifths of Connecticut's adult Indians earn $4,000 or less per year, a figure close to poverty level. In comparison with other Connecticut families, Indian families are four times as likely to have poverty level incomes.

Both Indians themselves and the state government have taken an initiative in dealing with Indian problems. Connecticut significantly modified its policy on Indians in 1973. Before that, Indian affairs had

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Mikki Aganstata

On September 27 Governor Ella Grasso signed a proclamation making September 28 Connecticut's Fifth Annual Indian Day. The meeting marked the first time all five chiefs of Connecticut's indigenous Indian tribes had met jointly and the first time they had met, as a group, with the Governor. Other members and alternates of the Connecticut Indian Affairs Council also attended the signing. Above, Governor Grasso expresses her thanks for an Indian basket. With the Governor, from left, Chief Cortland Fowler of the Mohegan tribe, Chief Aurelius Piper of the Golden Hill Paugussett, and, right, Indian Affairs Council Chairman, Chief Irving Harris of the Schaghticoke tribe. Below, the Governor posed with Indian Affairs Council members and alternates.

‘SPLAT’ TEAM

“Don't step in anything that will eat your boots," says Donald Burton. "And don't go in there without a hard hat," William Hegener adds. It is mid-morning, several hours after a fire at the Houghton Chemical Company in Manchester has been brought under control. Fire officials are poking in the debris of the Houghton warehouse as is the Fire Marshal's Arson Investigation Unit. Burton and Hegener are supervising a contractor's crew which is pumping multi-colored puddles into a vacuum pumper truck while company workers get ready to dam the burned-out warehouse's doors.

Burton is Chief Field Inspector with the DEP's Hazardous Materials Management Unit's Oil and Chemical Spills Section — a group some of its members call DEP's "Splat Team." He has been at the fire scene since 40 minutes after the fire alarm was sounded at about 4 a.m.

Hegener, the section's principal engineer, arrived an hour later, after handling the back-up phone calls needed to be sure that the situation would be brought under control as rapidly as possible and that environmental clean-up equipment would be on the scene quickly. (One section member usually speeds to the scene of a chemical fire or oil spill or similiar emergency while a back-up partner makes ten to fifteen calls: contacting company chemists, storekeepers, or other representatives to ascertain what materials are involved in the fire, accident, or spill; checking with fire and police departments involved; gathering data on the hazardous substances; lining up resources that can help with containment efforts and specialists in the clean-up of various types of hazardous materials.)

By mid-morning, the situation at Houghton Chemical is well under control. There is little chance that the nitrates, phosphates, and potash which made up much of Houghton's stock will wash downhill into a nearby brook. Doorways will be dammed and the burned-off roof will be covered with plastic before there is any rainfall. On the scale of environmental emergencies, Burton now qualifies the fire as "not major," though it easily could have been.

Hours earlier the situation was not so secure. There were burning oils and the threat of explosions, testified to after the fact by rows of bulging barrels. One corner of the building holds dented and water-streaked, but still intact, metal containers of cyanide which, without what Burton describes as a combination of "company precautions and good firefighting," might have ended up as hydrogen cyanide, the gas of the gas chamber.

The DEP is the prime contact agency in environmental emergencies and potential emergencies. The Oil and Chemical Spill Section's five members are the persons who actually handle, on round-the-clock call, some 700 such incidents each year.

The section works closely with the Hazardous Materials Unit of the State Fire Marshal's office which is called in when gasoline and other explosive vapor problems, underground gasoline leaks, propane gas or liquified natural gas problems, or motor vehicle accidents involving gasoline and other hazardous materials pose a risk to public safety.

The section also cooperates with the U.S. Coast Guard's New Haven and New London operations which handle spills in Long Island, the Thames River to Norwich, the Connecticut River to Hartford, and the lower reaches of the Housatonic and the Quinnipiac Rivers.

For the Oil and Chemical Spill Section, the first requirement, Burton says, is a fast response: "In these kinds of emergencies, the situation never improves. Every minute lost means more gallons of oil washing into a river or more chance of explosions emitting toxic fumes into the air."

"We're not," he adds, "in the cleanup business. But we do carry some containment materials — absorbents, a sausage boom for containing floating oils or gasoline, filter fence materials. When we get there, if there's something we can do to contain or minimize the effects of a spill, we do it. Sometimes, if you have the equipment and can respond rapidly, you can save thousands of dollars in cleanup expenses. If you can build a dike around an overturned truck, for example, at a cost of maybe a couple of hundred dollars, you might save a quarter of a million in river cleanup costs." He cites one accident in Danbury, involving a gasoline truck, where fast action by a local

Department of Public Works crew got a dike into a brook and "caught everything."

Sometimes success means no spill at all. The section's "largest non-spill" occurred recently when the earth next to a 1.2 million gallon oil storage tank at the Atlas Oil Company in East Hartford collapsed into the Connecticut River.

If the almost-full tank, with contents weighing about four thousand tons, had ruptured, Burton said, the result could have been a rush of oil that would have washed right across the river, probably into Wethersfield Cove, causing a huge pollution problem and posing a major fire hazard.

"Our decision to pump," Burton says, "was immediate." Implementing the decision required, among other things: a round of calls to arrange the transfer of the oil to several empty or abandoned storage tanks in the area; pumping oil from the threatened tank into Atlas' four other tanks for more rapid off-loading; lining up a fleet of twenty tractor-trailer rigs and home delivery trucks; calling in three vacuum trucks and modifying Atlas' pumping system so four instead of two trucks could be filled at a time; and rigging a "jet line" to an empty storage tank at a neighboring company. Nineteen hours after the original call, the endangered tank was empty.

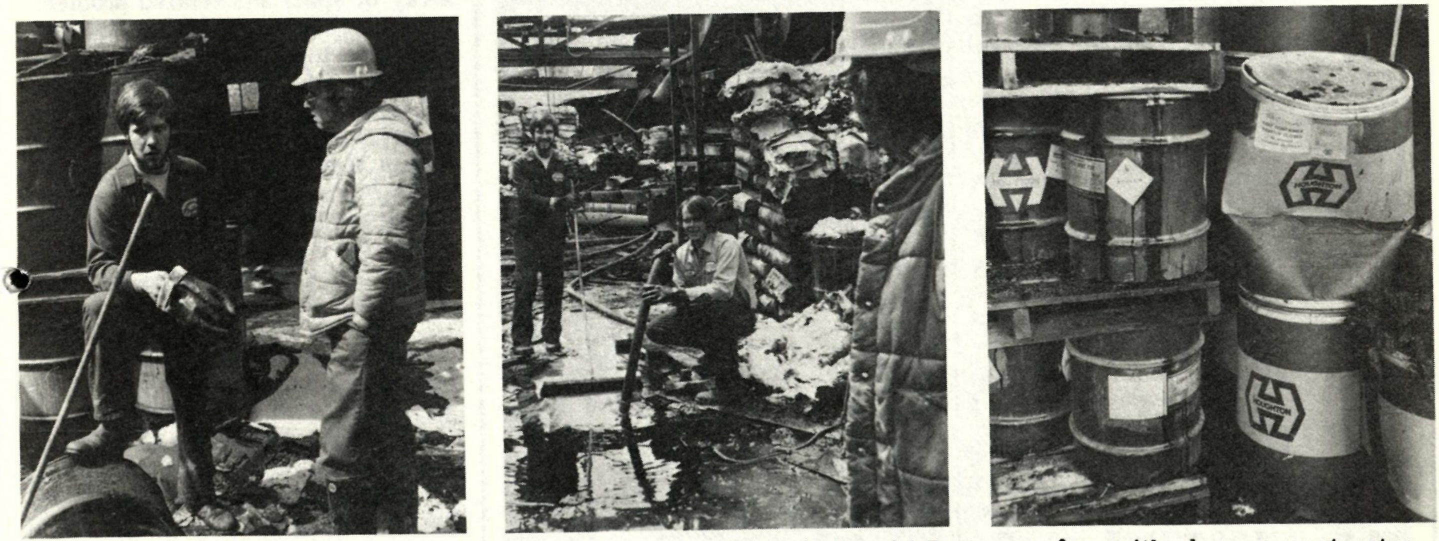
"We need people who can investigate fast and go to the resource materials and identify the hazardous materials' characteristics and decide what to do and act," Burton says. "You don't have the luxury of taking a long period to make a decision. You have to be able to apply your skills under adverse conditions to bring some semblance of order to a situation."

Besides Burton and Hegener, the Oil and Chemical Spills Section includes field inspectors Michael Capuano, Janet Frost, and Brian Coss, and secretary Mary Beth Miller who doubles as the unit's dispatcher. The unit also calls on experts from other DEP units, particularly the Air Compliance Unit whose Charles Zieminski spent the night at the potentially explosive Houghton Chemicals fire.

The section was originally set up in 1969 under the old Water Resources Commission and moved from there into DEP's Water Compliance Unit. It focused on spills that posed threats to the State's waters but also dealt with situations that otherwise threatened the environment or public safety such as spills of explosive or toxic substances. Last October the team was moved into the newly formed Hazardous Materials Management Unit where, Burton says, its activities are essentially unchanged. The five members of the section cover the entire state, 24 hours a day, 365 days a year.

State and federal laws require that spills of petroleum products or other toxic substances be reported to the State Police Department and the Department of Environmental Protection. There is no minimum limit on the volume of the substance involved. "Twenty-five gallons of a pesticide or phenol can be a major problem in a water supply," Burton says, "while 100,000 gallons of oil in a diked area sometimes pose less of a problem."

MOPS UP SPILLS



At scene of Manchester chemical warehouse fire, spills section's Donald Burton confers with clean-up contractor, left, and watches contractor's staff pumping, center, amid water-soaked and broken bags of chemicals. At right, cyanide in cans didn't turn into the "gas of the gas chamber" because of careful storage, good fire fighting.

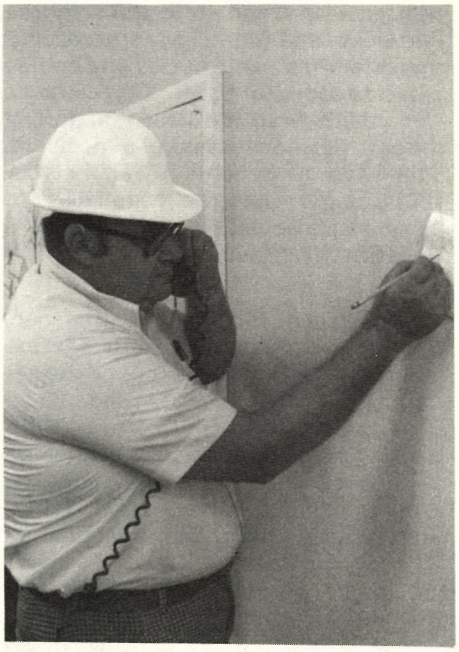
A week after the Houghton fire, Burton was still checking the Manchester scene regularly. Oil and Chemical Spills Section staff stay on the job until all is under control, which may mean three to four hours or may mean as long as three to four years as was the case with one recently completed removal of oil from ground water.

Some of the section's cases involve more detective work than crisis handling: identifying an offending substance; figuring out who uses it; tracking it to its source. Occasionally the polluter is not identified. When this happens, federal dollars can be used for the cleanup as they sometimes also are when the polluter refuses to take responsibility.

In fiscal 1979 the section logged 734 oil and chemical spill reports. The greatest numbers of these involved gasoline, diesel fuel, and No. 2 and No. 4 heating oils. But the surface waters and ground waters of the State, and occasionally its air and land, were also subjected to spills — ranging from several gallons to thousands of gallons — of hazardous substances that included insecticides, acids (hydrochloric, nitric, phosphoric and sulfuric), battery acid, hydraulic fluid, paint, solvents, asphalt sealers, and creosote. There were spills of latex, liquid nitrogen, styrene, vinyl acetate, acrylimide, and florescene dye along with several cases involving toxic fumes. Among the stranger of the section's recent cases were the 5,000 gallons of brandy that seeped into ground water after being dumped in a pit; the truckload of carbon black that overturned on a super highway, coating everyone and everything concerned with black dust; and the truck leaking dye that left a purple stripe on the highway from New Haven to Portland, Maine.

A large number of incidents are the results of ruptured gas or fuel tanks, pipeline failures, and open or leaking industrial and heating valves. Other causes are tank overfills, dumping, and car and tanker truck accidents. But the list of emergencies also includes sunken boats, barges aground, airplane crashes, and fires in chemical storage areas.

Above, section's principal engineer, William Hegener, makes one of the round of phone calls needed to muster containment and cleanup resources for an oil or chemical emergency. Below, unit members travel with a shelf of reference manuals as well as emergency equipment.



The situations range from the relatively everyday — like the nozzle that sticks on a self-serve gas pump — to the exotic and picturesque like the complaint about a "green substance being pumped into the Quinnipiac River from a pink pumphouse" or the request for someone qualififed to clean out "the late Uncle Charlie's basement chemistry lab."

There is, in some of the situations, a fair amount of danger, particularly from explosions when the spill is a petroleum product. "On this job you can't think about what might happen," Burton says. "You have to deal with the situation as it is. I didn't know, at first, why the State Police always station a van a quarter of a mile from a gasoline or oil spill to take names and addresses from everyone who arrives. It's so they could notify next of kin."

Burton worries that, with today's increasing concern about environmental hazards, "There are more and more peripheral people present at these emergencies. You're likely these days to have a 'cheerleading squad' at a spill. Large numbers of unnecessary persons congregate to find out what's going on, and many times they interfere with the personnel trying to bring the situation under control."

To act quickly in environmental emergencies, team members have to know where to find experts and services for dealing with a wide array of spills and related problems — resources ranging from town highway departments and the State Department of Transportation, which can sand spills or put up earth dikes, to industry experts who have dealt with a specific material, to private contractors with vacuum pumpers and specialized tankers and other equipment for offloading and transporting hazardous materials.

Burton and the other section members each travel with a shelf full of reference manuals in their cars along with their hard hats, air packs and respirators, chemical suits, face shields, boots and gloves, explosion meters, explosion-proof lights, and booms. With 10,000 existing hazardous materials, and new compounds being added every day, Burton says, "Nobody can keep all the data in mind. Learning has to be an on-going process. We read the journals, and we try methods that have worked in other places." After the first couple of years he thinks new inspectors can handle any petroleum product spill. When the substance is a more exotic one or the problem is major, Burton says of himself and Hegener, "We're there."

Belonging to the Oil and Chemical Spills Section wouldn't be everyone's cup of tea. "It can be very stressful. There's no such thing as routine." Besides danger and tension, there are such unpleasant aspects as being involved with fatal traffic accidents or in hassles with officials or spectators at the scene of emergencies. "You have," Burton notes, "to deal with people under the most adverse circumstances. The 'polluter,' for example, may be facing thousands of dollars in cleanup costs and is probably being asked to do things he has no familiarity with, immediately, at some impossible hour."

There are also the subtler hazards of continuously dealing with dangerous toxic products. Burton, for one, gets regular annual blood tests for build-ups of biocumulative materials in the body. And there is the inconvenience of being on year-round, 24-hour call. Besides being called out in the middle of the night, Burton says he has been called away from restaurant dinners at least half a dozen times, "always just before the food comes."

Section members may find themselves riding herd on several incidents simultaneously: Burton recalls one 80-hour period involving four spills, in which he saw four sunrises without sleep. On another occasion, a Saturday, two section members, with no other available help, had nine spills within a six-hour period, including a 20,000 gallon black oil spill in the Connecticut River.

Despite the hazards and the drawbacks, however, task force members like their work. "You see the results," Burton says, "You know you've saved money or maybe lives when you've been able to pull the rabbit out of the hat." As Charles Zieminski puts it, "You have to be creative out there." ■

Oil and Chemical Spills Unit's favorite success stories are the emergencies where "nothing gets away." One such happened at the Atlas Oil Company in East Hartford. Quick draining of a 1.2 million gallon oil tank, threatened by a landslide, prevented its rupture and a potentially catastrophic oil spill.

Mitchell Booth

New Hazardous Materials Management Unit Watches over Pesticides, Toxic Materials, Hazardous Spills

The new unit was officially formed in May 1979 although it began actual operations somewhat earlier. "Business," says director Stephen Hitchcock, "is very good. But we get more questions than there are answers." The new unit's three operating sections are:

PESTICIDES CONTROL (Gregory Piontek, 566-5148)
The Pesticides Control section, formerly DEP's Pesticides Compliance Unit, receives funding under the federal Insecticide, Fungicide, and Rodenticide Act to enforce the federal law in Connecticut along with Connecticut's pesticides control act. The section:

* registers all pesticides sold in Connecticut
* examines, licenses, and regulates all commercial pesticide applicators as well as farmers using pesticides that are restricted due to toxicity
* issues all aerial and aquatic pesticides application permits
* investigates pesticides complaints

HAZARDOUS WASTE MANAGEMENT (John Housman, 566-4869)

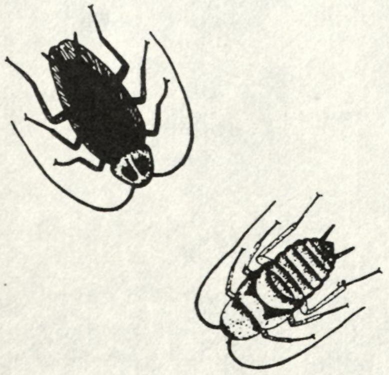
This unit was formerly part of DEP's Solid Waste Management Unit. It operates with funding under the federal Resource Conservation and Recovery Act. Currently it:

* is developing a manifest system which will eventually track hazardous materials in the State "from the cradle to the grave," that is from the plant which produces them to their final disposal site
* offers technical assistance on the disposal of hazardous wastes
* is conducting an inventory of old waste disposal sites in Connecticut which may contain toxic materials
* issues permits for the disposal of industrial wastes

OIL AND CHEMICAL SPILLS SECTION (William Hegener, 566-4633)

See story. This unit:

* handled over 700 spills and other hazardous materials emergencies last year
* licenses collection of waste petroleum and chemical products
* licenses and inspects petroleum and chemical products terminals ■



Avoid the Cucaracha Cha Cha

"I have cockroaches in my apartment, what do I do?"

"I want something strong, you know, like the exterminators use. I spray this stuff every other day for cockroaches, but I want something that will really work."

The Pesticide Control section receives numerous calls every year from apartment dwellers complaining either about cockroaches or the methods that the apartment house owner uses in his attempt to control the roaches. Unfortunately, if the apartment building owner does not wish to pay for the services of a professional, he often hands a sprayer and a bottle of pesticide to the janitor and demands he control the roaches. The janitor makes a vain attempt to control the insects, spraying with increasingly greater pesticide concentrations and at more frequent intervals. The tenant, whose apartment may be contaminated yet have no noticeable decrease in roaches, telephones Pesticide Control. Simultaneously, the owner or janitor is also calling, wanting advice on what to do.

To answer these questions, the Pesticide Control section has produced a booklet, "Control of Cockroaches in Apartments and Homes." The secret of control is not to use a stronger mixture nor a "secret ingredient," but to understand the biology of the cockroach so one knows were to spray. Bathing an apartment in toxic pesticides is less effective than placing small amounts of the pesticide in the proper place.

The booklet points out to the apartment house owner that better control is usually obtained by hiring a licensed pest control operator than by trying to do it himself. However, for those persons doing control work in their own buildings this little booklet should prove helpful. It can be obtained from the office of Pesticide Control, Hazardous Materials Management Unit, DEP, State Office Building, Hartford, CT 06115.

When working with any pesticide, it is vitally important to read and follow all directions and precautions on the label. Particular care should be taken if there are children, pets, or invalids present. Sometimes, the best control is obtained by scrupulous sanitation without the use of any pesticide. ■

State/EPA Agreement Focuses On Major Environmental Issues

By Tess Gutowski, Publicist,
Water Compliance Unit

September 25, 1979, marked the signing of a significant multi-purpose document — the State/EPA Agreement.

The Agreement identifies Connecticut's environmental problems and delineates projected accomplishments as agreed upon between the Departments of Environmental Protection (DEP) and Health (DOH) and the U.S. Environmental Protection Agency (EPA).

The purpose of the Agreement is to provide a management tool for integrating and coordinating environmental programs covered under the Clean Water Act (administered by DEP's Water Compliance Unit), the Clean Air Act (administered by the Air Compliance Unit), the Resource Conservation and Recovery Act (administered by the Solid Waste Unit and the Hazardous Materials Unit), and the Safe Drinking Water Act (administered by the State Health Department).

The State/EPA Agreement reflects important decisions on priorities, timing, responsibilities, and allocation of funds. It also acts as a communication and information document useful to the EPA, the State, areawide agencies, local governments, and interested publics.

A total of sixteen environmental and programmatic issues were identified within the agreement. The following are brief summaries of these issues:

(1) State Management Assistance Grant Training Program: This work plan assures implementation of the executed 205(g) delegation agreement in an orderly fashion. During FY 1980, the State of Connecticut will assume authority from EPA to administer certain functions associated with the Construction Grants program for municipal sewage treatment plants.

(2) Interstate Travel of Pollutants in the French River, the Housatonic River, the Connecticut River, and various tributaries to Connecticut water supply watersheds. Pollutant loads emanating from sources in Massachusetts and New York State affect water quality in Connecticut. Close cooperation is needed between the States and EPA to ensure abatement action at a level that will protect and preserve Connecticut water quality. The New England Interstate Water Pollution Control Commission will be requested to assist.

(3) Coordination and Consolidation of Laboratory Services: Increased attention to analysis of toxic materials will require adjustments in the laboratory services presently provided to the enforcement units in the State. This function must be coordinated closely with EPA to ensure the most efficient system.

(4) Solid Waste Management Plan: Development and Implementation: In addressing Connecticut's problem of increasing volumes of solid waste and decreasing available space for land disposal of these wastes, the State wants to move vigorously toward implementation of objectives in the Solid Waste plan.

(5) Development and Adoption of a Comprehensive Landfill Siting Policy for Connecticut: This approach will seek an improvement of the present system of landfill site development which is based on site-by-site evaluations of parcels presented to the regulatory authority by nomination from municipal authorities and the private sector.

(6) Implementation of the Open Dump Inventory Under Section 4005, Resource Conservation and Recovery Act (RCRA): The RCRA required EPA to develop landfill site criteria and the states to inventory all disposal sites and develop authority to upgrade or close sites in violation of the criteria. This work plan would set up Connecticut's criteria and a plan for conducting the inventory.

(7) Monitoring Program for Solid Waste Disposal Areas: At the present time, various State agencies monitor landfills as particular needs arise. There is a need to develop a coordinated State monitoring program.

(8) Approval of State Hazardous Waste Regulatory Program: Connecticut will develop its Interim Authorization Request Package to conduct a State Hazardous Waste Regulatory Program pursuant to Section 3006(c) of the Resource Conservation and Recovery Act.

(9) Strategy on Uncontrolled Hazardous Waste Sites: During FY 1980, increased resources will be dedicated to identifying, investigating, and developing a strategy for mitigating problems associated with abandoned, inactive, and mismanaged hazardous waste sites.

(10) Integration of Transportation and Air Quality Planning: Under Section 175 of the Clean Air Act, Connecticut must integrate air quality issues into the transportation planning process. Because of the number of federal, State, and regional agencies involved, this effort will require a high degree of cooperation. The State and the EPA will emphasize a coordinated overview of Section 175 program plans and transportation plans developed within the State by the Department of Transportation, local planning agencies, and elected officials.

(11) Motor Vehicle Emissions Inspection and Maintenance Program: Successful implementation of Connecticut's I&M program is critical to air quality improvement in the State. This work plan includes establishment of a working agreement among EPA, the State Department of Environmental Protection, and the State Department of Motor Vehicles.

(13) Northeast Corridor Regional Ozone Study: The State will participate in the development and implementation phases of the Northeast Corridor Regional Ozone Study

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By James Spignesi,
Research Assistant, DEP Wildlife Unit

Deer Season 1979-80

Lottery was successful; permits are up; productivity remains good . . .

Irene Vandermolen

With a limited amount of state owned acreage available for deer hunting in Connecticut, a system is needed to ensure a random and equitable allocation of State Land Permits. The Permits for hunting deer with either a shotgun or a muzzle loader on State land are allocated through a computerized lottery selection process. The selection process took place in April of this year. A private consulting firm developed a computer package which allowed the selection process to be conducted without any of the complications that have plagued the lottery in the past.

By the end of June, 5,235 people had been notified of their selection for shotgun permits. Another 3,154 persons were notified that they had been chosen to receive muzzle loader permits. In all, a total of 8,389 people were selected from the 14,000 who had submitted applications. This is over 2,000 more permits than were allocated for the 1978 deer season.

Archery permits, which are available to everyone wishing to hunt with a bow and arrow, are expected to top 5,000 again this year.

The sale of permits to hunt with shotgun or muzzle loader on private land are also expected to rise this year. Landowners can issue these permits based on the acreage in ownership. They may issue one permit for the first ten acres and one for each additional 20 acres or part thereof.

Persons wishing to obtain either an archery or private land muzzle loader or shotgun permit can pick up the necessary applications and consent forms from their town clerks or selected sporting goods dealers. A copy of the 1979 Deer Field Guide should also be obtained from the town clerk. This guide contains all of the laws and regulations pertaining to deer hunting in Connecticut in addition to the locations of the mandatory deer checking stations.

The deer seasons this year will begin on October 20, which is the first day of the first half of the archery season which continues through November 21.

The muzzle loader season begins on a day with traditional and historical meaning, Thanksgiving, November 22. The muzzle loader season will continue for nine days, closing on December 1.

Shotgun hunters will begin their season on December 3. The closing date for the shotgun season is December 19. Archers, with their split season, then have from December 20 to January 5 to use their deer tags.

The outlook for the 1979 season is good. The productivity study conducted by the Wildlife Unit, in cooperation with the state's Conservation officers, last spring indicated that the female deer are producing well, with an overall average of 1.6 fawns per doe.

Last winter, although extremely cold, had little snowfall which allowed the deer to move about freely and find food, resulting in negligible malnutrition loss, a severe problem in the more northern states.

Over 15,000 persons will be participating in the 1979 deer season in Connecticut during its three separate seasons. Many will be successful in taking a deer, but most will not. However, for a majority of the deer hunters, a successful hunt is not based on whether or not they have taken a deer. For most of these people, planning their days afield and getting outdoors and seeing deer and other wildlife constitute a successful hunt. ■

Leonard Lee Rue III

By Paul Herig,
Chief, DEP Wildlife Unit

Deer Damage

Or what's on the menu for the deer who ate your buffer bunch for lunch . . .

Leonard Lee Rue III

The DEP Wildlife Unit has been given the reponsibility for managing the State's wildlife resources in the best interest of all the people. With respect to deer, responsibility for their management was given the unit by State law only five years ago, after some twenty years of efforts in the State legislature. During the same twenty to twenty-five year period, Connecticut's deer population has increased threefold – to approximately 30,000.

During the same period of herd expansion, the exodus from the city has resulted in suburban sprawl which today contributes to deer-landowner conflicts. Coupled with this is the current inflation and the energy shortage. Inflation encourages timber harvesting, and rising fuel costs contribute to a boom in cord and fireplace wood cutting. Each of these creates more available deer forage and thus greater fawn production and a corresponding deer population increase. And more deer damage and more landowner complaints.

The most promising way to improve the situation, or at least reduce deer damage, is for large landowners to permit deer hunting on their properties. These areas act as centers from which deer spill out onto surrounding areas.

Deer will not confine themselves to small geographic areas, or home ranges, and eat themselves into a starvation situation. As numbers increase and choice deer foods decrease, deer expand their foraging into adjacent areas. This process continues, the deer numbers increase in the areas, and the areas increase in size.

If the nucleus of the deer population is kept below that level of population density which causes this competition for choice foods, then the expansion of the deer range can be limited or at least controlled.

Deer are very capable about selecting the most nutritious and palatable foods and learn quickly where these items occur. When deer move out of their normal habitat areas, as is occurring, they begin eating homeowners' ornamentals. Once this occurs, discouraging them is like asking people if they would give up a prime steak for a hotdog. Deer tend not to move away from a good thing.

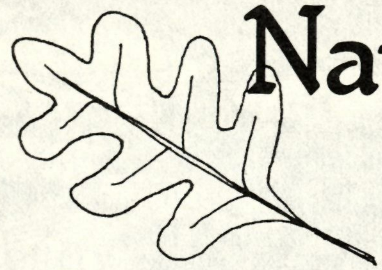
We suggest that property owners who have no objection to permitting hunting and who want to help control deer damage should allow hunting in order to take some of the deer from the area. If a large number of persons participate, the overall impact will be noticeable. Archery hunting, particularly, could be encouraged, as it is a close range contact between archer and deer and ideal for a suburban situation. A volunteer archery list could be established which could be used to help control deer damage in close proximity to homes upon passage of legislation permitting this.

As there is no known repellent which will work in each and every situation, we do not recommend any one deer repellent over another. Users who have applied the same repellent for the identical problem have had different responses in different geographic areas. We have no alternative but to suggest to owners that they try various methods, depending on the time and money they wish to spend. We are in constant contact with managers in other states to determine the usefulness of new repellent products and techniques. Fencing of small garden areas or valuable plantings seems to be the surest way of preventing damage at this time.

No community or homeowner is unique in experiencing deer damage. As home construction continues to expand into areas inhabited by deer, more and more conflict will be apparent. As more and more persons make use of the timber and cordwood on their properties, the result will be more production of deer food (browse) by stump sprouting and because of sunlight's reaching the forest floor to stimulate growth of dormant seeds. All this means more deer food and more deer.

People will have to learn to accept certain levels of deer damage, learn to use control measures suited to their individual situations, or eliminate those items which are attractive to deer. The time and money expended to prevent the damage or losses will depend upon attitudes and values of individuals.

There are more persons who want deer, to see, to photograph, or to hunt, than there are persons who don't want any deer at all. Therefore, the State would not condone eradication of the deer even if it were possible. The best approach is to attempt to hold the deer population to appropriate levels. To do this, hunting is the only practical method. Landowners should permit or encourage hunting to prevent increasing deer depredation. Persons who do not allow hunting actually are establishing refuges where the legal hunter is not permitted and are perpetuating the kinds of deer damage that are now occurring. ■



Nature Notes

by Penni Sharp

Fungi

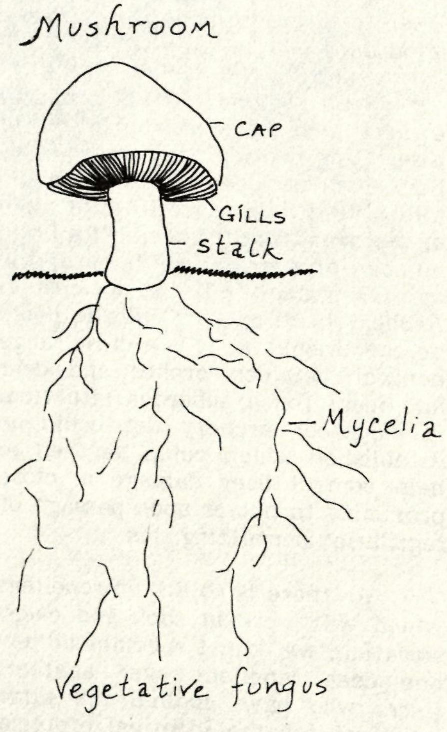
The fall season in the northeastern United States is a good time to search for different species of fungi, particularly if the season has been rainy and warm. A walk in the autumn woods may reveal a wide variety of colors and shapes among the different species of these non-green plants.

As a group of plants, the fungi are distinguished by their lack of chlorophyll. Unlike green plants, which are able to manufacture their own food from inorganic substances (water, carbon dioxide, and nutrients), fungi depend upon other plants or animals for survival. Most fungi are saprophytic, meaning that they live upon and consume dead material. Some fungi are parasitic and live on or within a living host. In some instances these relationships are highly specialized in that a particular fungus may have evolved to attack a specific host species.

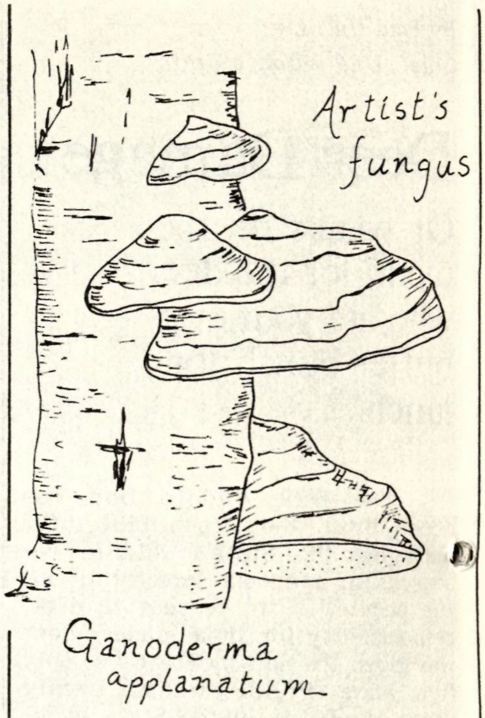
A third type of relationship may be formed between fungi and higher plants. Mycorrhizal associations are mutually beneficial relationships between the vegetative fungus plant and the tiny rootlets of trees and shrubs. Fungus cells invade the rootlets and in exchange for moisture and protection enhance the host's ability to obtain nitrogen, phosphorus, and other nutrients. It has been demonstrated that a given tree species may be dependent upon its mycorrhizal associate. When deprived of its fungal partner, some trees show reduced growth and vigor.

Fungi are perhaps the least appreciated group of plants, yet their role in nature is of the utmost importance. They are the decay organisms. Although the green plants can utilize energy from the sun to convert inorganic compounds into products that sustain other life forms, without the fungi, green plants could not survive. The products of fungus decay, broken down and available in the soil, are critical to green plants.

Fungi affect our lives in many ways, both harmful and beneficial. Molds and rusts attack such products as wood, cloth, leather and foods. Certain fungi are responsible for a wide variety of diseases in man, livestock, and crop plants. Viewing fungi in a more positive light, consider that penicillin is derived from a mold and that molds are critical to the production of certain cheeses. Yeasts, which are classed among the fungi, are used in breadmaking and in the fermentation of alcoholic beverages.



The mushroom that catches the eye of the collector, photographer, or nature enthusiast is not the fungus plant itself, but is actually the fruiting body of the plant. Few people see a mushroom "plant" which consists of a fine mass of threads called mycelium.



The mycelium or threads form the vegetative tissues of fungi which grow and digest food material and eventually produce the fruit or mushroom. The fruit develops for the purpose of producing and dispensing spores, the reproductive bodies of fungi. The spores are minute and when discharged may be carried long distances by wind or water. If a spore lands on a suitable substrate, a thread will grow, branch, and form the mycelium which will eventually produce more mushrooms, thus continuing the life cycle. In some instances, with a uniform food supply, the mycelium will radiate out in all directions from where the spore originally landed. When the mushrooms are produced, they appear in a circular pattern, which mushroom hunters refer to as a fairy ring. Some fairy rings reappear year after year in the same location as long as the food supply remains adequate.

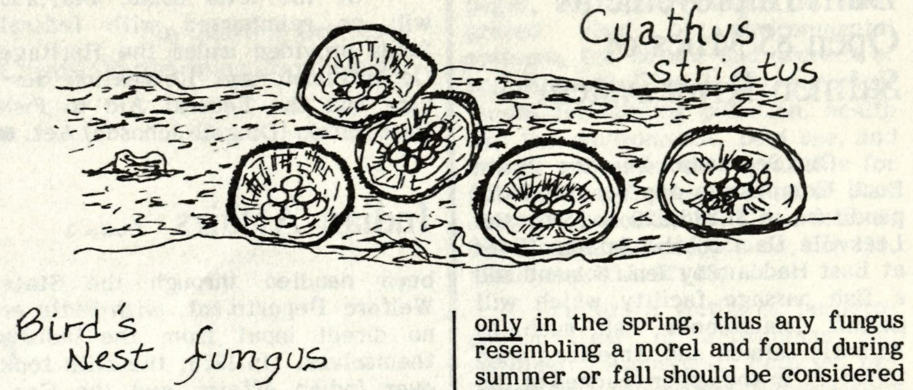
The large fleshy fruiting bodies of the higher fungi occur in two of the four classes of true fungi, Ascomycetes and Basidiomycetes. The main difference between the two classes is the way in which the spore is borne. Ascomycetes or sac fungi produce a sac or ascus which contains the spores. The class numbers about 40,000 species and includes yeasts, blue and green molds, the cup fungi, and morels and truffles. The fungi that are responsible for the chestnut blight and for Dutch elm disease are among the sac fungi.

Basidiomycetes, or club fungi, total about 25,000 species which include many of the edible mushrooms as well as destructive fungal parasites such as smuts and rusts. All fungi in this class bear basidiospores on club shaped structures, or basidia, usually four spores per basidium.

The mushrooms that are encountered in the out of doors belong to these two classes. To those who wish to collect edible mushrooms, a word of caution is necessary . . . be absolutely certain that what you gather is properly collected and identified. There are several texts that can aid the collector; better still, before embarking on this hobby, enroll in a course that teaches the proper techniques. Mistakes can be fatal, and in some cases proper identification depends upon a microscopic property of the mushroom. To those who are interested in the aesthetic qualities of fungi, many interesting species can be identified.

Some of the ones of special interest found in Connecticut are briefly described.

Earth Stars (Lycoperdales): These distinctive members of the Basidiomycete class are appropriately named. This unusual star-shaped fungus has two walls and, at maturity, the outer wall splits and folds back to form rays which surround a central button. When dry, the rays may curl up and surround the button, but following a rain they will unfold again. Spores are discharged through an opening at the top of the button.



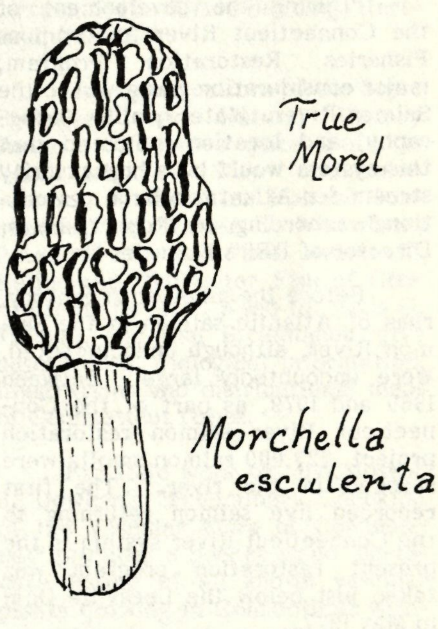
"Bird's Nest" Fungi (Nidulariales): The members of this group are easy to identify as they resemble tiny cups with miniature eggs. These fungi are found growing on bark, twigs, or decaying wood. At first the "nest" is closed, but at maturity the top of the nest opens up exposing the "eggs." Spores develop within the eggs. A heavy rain will wash the eggs out of the nest and when the eggs disintegrate, the spores are released, thus continuing the life cycle of this interesting fungus.

Artist's Fungus (Ganoderma applanatum): The fruiting body of this pore fungus is hard and bracket-like and forms on logs and stumps. The broad upper side is gray to gray-brown with striations. The minutely pored underside is white, however when scratched or injured it turns brown. This attribute has given the fungus its common name as pictures can be etched upon the pore surface. Artist's fungus grows mainly upon the stumps of hardwoods, but it is occasionally found on conifers. This fungus will also attack wounded areas on living trees.

Polypore fungus (Polyporus versicolor): This is a common pore fungus of Connecticut woodlands. It forms overlapping, fan-shaped clusters on tree trunks and logs. This fungus is delicately hued with bands of color ranging from white and gray to yellow, red, and green. The velvet surface is soft to the touch, but the overall texture of this polypore is brittle. Polyporus versicolor fruits in late spring and in the fall and is widely distributed.

True morels (Morchella sp.): True morels are the most prized of the edible mushroom. They fruit only in the spring, thus any fungus resembling a morel and found during summer or fall should be considered a false morel and not be collected for the table. The morels are stalked fungi with a head on top that resembles a pine cone. The perforated head is the spore-bearing part of the fruiting body.

The delicate flavor and texture of morels has made them most popular with mushroom fanciers. Yet no one has succeeded in cultivating them and morels must be collected in the wild.



Some useful references on the fascinating world of fungi are:

Christensen, Clyde M. 1959. Common fleshy fungi. Burgess, Minneapolis

Miller, Orson K. 1979. Mushrooms of North America. E.P. Dutton, New York

Smith, Alexander H. 1963. The mushroom hunter's field guide. University of Michigan Press, Ann Arbor

Dam Improvements Open 85 Miles of Salmon River System

On September 27, the State Bond Commission approved the expenditure of $1,280,220 to lower the Leesville Dam on the Salmon River at East Haddam by ten feet and add a fish passage facility which will permit anadromous fish such as Atlantic salmon and American shad to return to the upper reaches of the river to spawn.

The project also includes elimination of hazardous conditions at the dam and at an old power generation station and improvements to insure that the dam can handle a major flood.

The Salmon River is one of the most heavily fished in the State, and this project has been under consideration since 1969.

"During the development of the Connecticut River Anadromous Fisheries Restoration Program, major consideration was given to the Salmon River. Water quality, topography, and location indicated that this system would be a high priority stream for Atlantic salmon restoration," according to Robert Jones, Director of DEP's Fisheries Unit.

Before the nineteenth century, runs of Atlantic salmon in the Salmon River, although undocumented, were undoubtedly large. Between 1969 and 1979, as part of the Connecticut River salmon restoration project, 223,000 salmon smolts were stocked in the river. The first recorded live salmon returning to the Connecticut River system in the present restoration program was taken just below the Leesville Dam in May 1977.

The addition of the fishway will give Atlantic salmon and other anadromous fish, as well as resident fish species, access to 85 additional miles of mainstream and tributaries of the Salmon River, virtually all of which are open to fishing.

It is anticipated that work on the dam will begin in the near future. It will probably be completed sometime during 1980, and there is a good chance it will be available for the spring salmon "run" in 1981.

Of the total costs, $437,250 will be reimbursed with federal funds provided under the Heritage Conservation and Recreation Service and the Federal Aid to Fish Restoration (Dingell-Johnson) Act. ■

Indian Affairs

From p. 3

been handled through the State Welfare Department, with little or no direct input from the Indians themselves. In 1973, the DEP took over Indian affairs, and the Connecticut Indian Affairs Council (CIAC) was established. The Council consists of one representative from each of the indigenous tribes and three members appointed by the governor. Each member serves a three year term.

According to its chairman, Irving Harris, the function of the CIAC is "to bring Connecticut's indigenous tribes together to help resolve problems, coordinate projects, and establish communication among the tribes, the DEP, and the governor's office." At its monthly meetings the CIAC deals with specific problems any tribe might be having. There are reservation boundary disputes, reservation beautification and development projects, and questions of Indian identify. Proof that the Council has been active is evident in that the extent of its power is now being challenged in the courts.

Although the CIAC is not funded to carry out projects, it can often help tribes obtain other funds. Federal HUD grants are available for recreational and development facilities on the reservations. CETA workers sometimes work on reservations, most recently constructing a road at the Schaghticoke reservation and working in various positions at the Mashantucket reservation. The CIAC also works hand in hand with AID, the American Indians for Development, in assisting the Indians. Unlike the Council, AID serves both indigenous and non-indigenous Indians with its efforts.

The crucial link between the Indians and the state government is Mikki Aganstata, the DEP's Indian affairs coordinator. Ms. Aganstata helps the Indians to function within the "paper society" of our government. She works closely with the Council, providing them with information and guidance. She is also working on a 150-page publication, due to be completed soon, which will provide a general historical background on each of the indigenous tribes and the CIAC and a description of their present situations and concerns and of future plans for the Connecticut tribes. Since the last book about Connecticut's Indians was published in 1851, this is a long needed update.

Despite the DEP's limited budget for Indian affairs, the Indians are generally pleased with the DEP efforts. According to Harris, the department is very responsive to the Indians' needs. Its attorney general litigates on the Indians' behalf, and the unit tries to act in the tribes' best interests. The DEP and the Indians have, says Harris, a "close relationship," with a good deal of communication and good will. ■

EPA Agreement

From p. 9

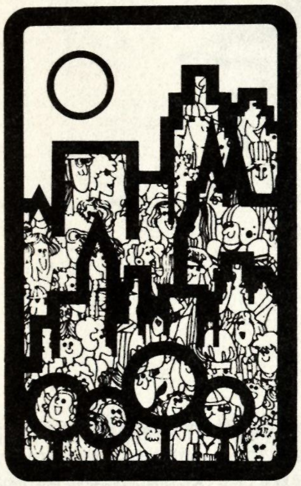
through participation in policy briefings, model analysis, and ambient air monitoring activities. This study addresses the interstate transport of ozone and its precursor pollutants.

(14) New Source Permit Coordination: There is a critical need to develop a process for the coordinated review of new pollution sources requesting environmental permits. This work plan establishes close cooperation between EPA and State reviews.

(15) Drinking Water Program Management Review and Information Exchange: EPA and the State will assess enforcement of the Safe Drinking Water Act under the existing laws, regulations, guidelines, contracts, and agreements.

(16) Chemical Contaminants in Drinking Water: With the EPA, Connecticut will establish a program for assessing the relative risks and setting guidelines for acceptable levels of volatile organic substances that have carcinogenic or mutagenic potential when present in drinking water.

The State/EPA Agreement is a dynamic document emphasizing the coordination and integration of environmental programs. Full utilization of the Agreement will allow a systematic and efficient approach to solving Connecticut's environmental problems. ■



For Your Information

By Martina Delaney,
Citizens' Participation Coordinator

Some Suggestions for Your Winter Reading, 'Environmental' Gifts

On a snowy winter's night it is always comforting to snuggle up with a good book. If you sit on a local conservation commission, however, chances are that late meetings and extended projects have kept you from that promised book longer than expected.

Interesting and informative reading is available to concerned commission members involved with environmental quality in their towns. A newly published book by Professor Terry J. Tondro is entitled Connecticut Land Use Regulation. The book is a result of a study undertaken by Tondro for the Planning and Zoning Section of the Connecticut Bar Association. Connecticut's statutory and case law on zoning, subdivision regulation, wetland regulation, historic districting, and solid waste disposal are only a few of the topics discussed. Many related problems, including conflict of interest, the applicability of the Freedom of Information Act, growth control, enforcement techniques, and the pre-emption of local ordinances, are also considered. Particular emphasis is given the problem associated with the increasing use of the special permit as a tool for regulating land use.

Over 300 recent Connecticut cases are cited or discussed to give a complete picture of contemporary land use law in this State. The book also offers a very detailed topical index which makes it an easy-to-use resource for persons interested in current Connecticut law on land use regulation issues.

Tondro has taught courses in land use controls, administrative law, property, and local government law at the University of Connecticut School of Law since 1973. A consultant to several Connecticut municipalities and organizations, he has been a frequent speaker at seminars and conferences on a variety of land use control problems throughout Connecticut. Connecticut Land Use Regulation is available at $9.95 per copy. Checks should be payable to "Dean's Publication Fund" and be sent to the University of Connecticut School of Law Press, West Hartford, CT 06117.

The National Wetlands Newsletter is a new monthly publication containing up-to-date information on scientific research, developments in local, state and Federal programs and activities, private efforts, legislation, litigation, literature, and conferences relating to inland and coastal wetlands and flood plains.

The National Wetlands Newsletter is a project of the Environmental Law Institute, Suite 600, 1346 Connecticut Avenue, N.W., Washington, D.C. 20036. Subscriptions are $25.00 for 12 issues.

Tuning the Green Machine by the Institute for Environmental Education and the Association of New Jersey Environmental Commissions was written to aid citizens in making responsible decisions that affect their environment. In 320 pages, the book presents an integrated view of environmental systems, the nature and sources of pollution, the legal and technical means for abating pollution, health and the environment, land use, and energy conservation. Available for $10.00 from the Association of New Jersey Environmental Commissions, 300 Mendham Road, Rt. 24, Box 157, Mendham, N.J. 07945.

Are you a victim of herpetophobia (fear of amphibians and reptiles)? Richard C. Petersen believes that snakes are "undeserving of their present hostile reputation." To defend his reptile friends, he wrote the booklet, "Connecticut's Venomous Snakes--Timber Rattlesnakes and Northern Copperhead." In it you will find information on identification and recognition of these snakes, biological background and corrections of some popular myths. The booklet costs $1.07 including tax, and may be ordered postpaid from Publication Sales, Department of Environmental Protection, State Office Building, Hartford, CT 06115.

Three publications of the State Geological and Natural History Survey could prove quite useful in field work. Two companion volumes, "Freshwater Fish of Connecticut" by Walter R. Whitworth, Peter L. Berrien, and Walter T. Keller, and "Saltwater Fish of Connecticut" by W.H. Weed III, Algis G. Taruski, and Dan E. Simanek, give descriptions, biological information, illustrations and distributional maps of Connecticut fishes.

For field work on land, Joseph J. Dowhan's "Preliminary Checklist of the Vascular Flora of Connecticut" provides a pocket-sized, up-to-date listing of all known vascular plants growing in Connecticut without cultivation. Each of these three publications costs $2.14 including tax, and may be ordered postpaid from Publication Sales, DEP, State Office Building, Hartford, CT 06115.

Mervin Roberts' The Tidemarsh Guide, recently published by E.P. Dutton, is an informal field guide to the more common animal and plant life found in the Atlantic Coast tidal marshes, from Georgia to Maine. Available at book stores, the book is illustrated by Sandra G. Powers and written for the casual visitor to the marsh. ■

208
water quality management

Regions Conduct Pilot Water Programs

The Connecticut 208 Program has recently embarked upon its second phase of water quality planning. As in the previous phase, the major part of the work concentrates on the problem of controlling what are called "non-point sources" of water pollution.

Non-point source pollution includes those types of pollution which are not discharged from a pipe or "point." Some examples of non-point source pollution are erosion and sedimentation, pollution of groundwater by failing septic systems, and stormwater runoff which carries pollutants into lakes and streams.

Each of the fifteen regional planning agencies in Connecticut has specific tasks which are part of a basic, statewide effort. These include groundwater protection, local assistance in the sewer avoidance program, assessing the impact of non-point source pollution in selected streams, and general water quality management. In addition, under the current Connecticut 208 Program, several regional planning agencies are conducting individual, alternate projects on various water pollution control related activities. These projects, in most cases, can be considered pilot activities which could have application to other parts of the state.

The Connecticut River Estuary Regional Planning Agency has been given additional funds to complete its initial special study of non-structural alternatives to traditional sewers in the Valley Shore area of the region. In addition, the agency will promote its on-going efforts to create a health district in the region as a mechanism to improve local water quality management.

The Northwestern Regional Planning Agency has received funds for the development of guidelines for the use of soils information to establish minimum lot sizes for town zoning commissions.

The Greater Bridgeport Regional Planning Agency has been funded to establish a complete recycling system for used crank case oil in the town of Stratford. The program will include one or more recycling sites, with provisions for staffing and equipment, transportation of waste oil to re-claimers, publicity, and coordination with other recycling groups.

The Northeastern Regional Planning Agency has been funded to prepare detailed soils maps for nine towns within that region. The agency could not complete this element during the initial 208 study because of a lack of available information.

The Regional Planning Agency of South Central Connecticut will conduct two alternate projects this year. The first will provide resource data and sampling equipment to the Guilford Inland Wetlands Commission for its Hydrologic Monitoring Program. The second project will be a technical seminar on 208 topics as a means of promoting the activities of the newly re-organized Quinnipiac River Watershed Association. Additional meetings will be held with local commissions to update them on 208 Program outputs.

The Southeastern Regional Planning Agency will utilize the Lakes Management Handbook (developed by the Windham Regional Planning Agency during the initial Connecticut 208 study) to perform a lake eutrophication diagnostic study on a major lake within the region. The study will produce management recommendations for lake preservation and enhancement.

Finally, the Windham Regional Planning Agency has received funding to initiate a public awareness program concerning the value of the rivers within the region. The agency will determine the feasibility of establishing a citizen-based river preservation organization to protect its streams from threats of development.

As mentioned previously, these efforts can be considered "pilot" or "model" studies. A number of different objectives can be met by conducting such demonstration activities in different parts of the State. First, this approach gives the 208 Program the most bang for the buck, so to speak, by studying far more problems than could be covered otherwise. Second, it eliminates needless duplication. And third, it provides data and management recommendations which are readily transferrable within Connecticut.

In the final analysis, the Connecticut 208 Program has continually sought the most cost-effective means of reducing water pollution within the State. The individual special studies which are now in progress are another means of achieving that goal. ■

By Joseph M. Rinaldi,
208 Public Participation Coordinator,
209 Court St., Middletown, Ct. 06457

coastal
area
management
71 capitol avenue hartford conn 06115

CAM NEWS

From Byram Point to Barn Island: A Summary of the Coastal Management Plan

The following is an excerpt from a soon-to-be-published summary of CAM's coastal management plan. Recently submitted to the federal Office of Coastal Zone Management (OCZM), that plan is presently undergoing federal review and will become CAM's master document. As part of a broad informational effort, a Citizens' Summary of the plan, entitled From Byram Point to Barn Island, will be published, describing the plan's important aspects and giving a brief history of the CAM program. The summary will be distributed throughout the State. For copies please contact the CAM office at 566-7404.

INTRODUCTION

Over a century ago Daniel Webster dubbed Long Island Sound "The American Mediterranean." In recent years the Sound has been frequently characterized as an "urban sea." Both images, the one of recreation and pleasure and the other of intense use, are appropriate for Connecticut's coastal area. Historically, the Connecticut coast has been the center of intense industrial, commercial, and residential activity. However, between the port centers of Stamford, Norwalk, Bridgeport, New Haven, and New London, much of the shoreline area retained its rural character and became the seasonal watering grounds for vacationers — a place for recreation.

Today our use of and dependence on the coastline have greatly expanded. Forty percent of Connecticut's population lives in the thirty-six coastal towns, making the average density of housing in the coastal area nearly three times greater than in inland areas. Seasonal dwellings have become permanent residences, and vacant shorefront land and open space in the coastal area are at a premium. Housing, industrial and commercial development, energy facilities, marine commerce, and recreation all compete for a limited amount of available land. The heavy development of shorefront land has had significant impact on coastal resources and the environmental quality of the coastal area. Bit by bit, piece by piece, the face of our coast has been changing.

The Connecticut Coastal Area Management (CAM) Program began in 1975, based on the initiative of the federal CZM Act. Connecticut chose the Department of Environmental Protection as the planning agency to receive and administer federal funds under the CZM Act. The program has been guided by a twenty-four member advisory board, composed of representatives from state and regional planning agencies and citizens representing various interests related to the coast. Throughout the program's development, the CAM Advisory Board has provided policy direction and advice and has acted as a sounding board on major issues ranging from erosion and dredged material disposal to onshore development impacts of offshore petroleum exploration.

For four years, the Connecticut CAM Program studied the overall effects of coastal activities, identifying critical coastal resources that have been affected and exploring a variety of methods for improving the management of coastline use and development. In 1979, the program completed its final year of developing a management plan for the state's coastal land and water uses. Enabling legislation (P.A. 79-535) to implement a comprehensive coastal management program for Connecticut was passed during the 1979 session of the General Assembly and will become effective January 1, 1980. Based on these new authorities and on existing statutory authorities in Connecticut, the management plan containing planning components required for federal approval was prepared and submitted to the federal Office of Coastal Zone Management.

Public input, via participation by local, state, and federal agencies, and by various interest groups, was actively sought throughout the development of the management plan. In addition to publications such as CAM's quarterly newsletter Land's End, CAM's Developer's Handbook, and Long Island Sound: An Atlas of Natural Resources, articles on the program's development have appeared in a variety of periodicals. Over forty reports have been published on coastal management in Connecticut, including thirty technical reports on the components of and options for the management plan. Over three hundred public meetings on coastal management have been held, including twelve regional workshops on options for Connecticut's participation in coastal management and twenty-one public hearings on the proposed legislation to implement Connecticut's CAM Program.

As the management program is implemented, public participation will continue to be sought through hearings, at the state and local levels, on permit applications and periodic workshops on coastal management and planning, as well as through continued publication of reports and of Land's End. ■

Connecticut Department of Environmental Protection

citizens' bulletin index

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Baby Great Horned Owl Leonard Lee Rue III

Trailside Botanizing

by G. Winston Carter

Red Oak

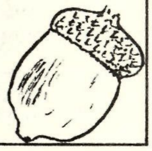
Quercus rubra

The genus Quercus is usually divided into two groups, the black oaks, of which red oak is a member, and the white oaks. Red oaks have leaves which are bristle-tipped, and the acorns take two years to develop, while the leaf lobes of the white oaks are rounded and their acorns are formed every year.

Red oaks are often confused with black oaks, and the two frequently may be found growing side by side. The leaf of the red oak is not as shiny and crisp as that of the black, and it lacks the hairs on the underside of the leaf. Red oaks have brown bark which frequently has light stripes resembling ski trails near the upper part of the trunk. The inner bark is orange, unlike the inner bark of the black oak, which is yellow. This is sometimes confusing because the difference in color may not be that distinct. In the winter, the lack of hairs on the clustered winter buds is a good way to tell red oaks from black, which have woolly buds.

The acorns of the red oak are their most distinctive feature. They are often large and broad and set in saucers instead of cups. The nut may be about two-thirds of an inch beyond the rim of the saucer. The inside of the nut is white and very bitter.

This species of oak is fast growing, and you can blow bubbles through a stick of its very porous wood. Red oak is valuable for fuel, heavy construction, interior decoration, and furniture. ■



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Director Info & Ed: William Delaney
Editor: Margot Callahan
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